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NAS KEY WEST  
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LETTER REGARDING PRESENCE OF ACROLEIN IN INVESTIGATION DERIVED WASTE  
FROM SOLID WASTE MANAGEMENT UNIT 9 WITH ATTACHMENT NAS KEY WEST FL  
10/13/1998  
TETRA TECH NUS

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AIK-98-0450

October 13, 1998

Project Number HK 7046

*Via US Mail*

Mr. Phillip Williams  
Installation Restoration Coordinator  
Environmental Branch  
U.S. Naval Air Station Key West  
P.O. Box 9000  
Key West, Florida 33040-9001

Reference: CLEAN Contract No. N62467-94-D-0888  
Contract Task Order No. 0007

Subject: Request for Information Relating to the Disposition of Investigation Derived Waste (IDW)  
from the ER,N Field Activities (Letter 6 August 1998).

Dear Mr. Williams:

On 8 October 1998, NAS Key West Hazardous Waste Coordinator, Patsy McNeill contacted Tetra Tech NUS requesting a summary of the investigations at the SWMU 9 Former Jet Engine Test Cell. Ms. McNeill indicated that the chemical acrolein that was detected in the IDW generated at SWMU 9 (Letter R. Ray, TtNUS to P. Williams, NAS Key West, 6 August 1998). According to Ms. McNeill, the chemical is a RCRA 'P' listed waste that is not covered by the NAS Key West Resource Conservation and Recovery Act (RCRA) Part B Permit. In accordance with RCRA, Ms. McNeill notified the Florida Department of Environmental Protection (FDEP) of the presence of the chemical acrolein stored at NAS Key West. As a result, the FDEP requested that NAS Key West determine the source of this chemical.

We have prepared the attached summary to meet Ms. McNeill's needs and those of FDEP. In addition we have reviewed the IDW data set to determine if the chemical "acrolein" is a laboratory contaminant. No evidence exists in the analytical laboratory data to reject the detection of acrolein. However, this is the first time that this chemical has been detected at this site or any other ER,N or BRAC site at NAS Key West. The chemical presence may be a byproduct of the combustion activities that occurred in years past at SWMU 9

As a courtesy to you, we are sending a copy of this report to Ms. Patsy McNeil for her use in addressing this IDW issue. Should you have any questions after reviewing the attached summary, please call me at (803) 649-7963.

Sincerely,

D. Scott Flickinger  
NAS Key West Deputy Task Order Manager

Enclosures

cc: D. Patrick, NAVFACENGCOM Southern Division  
P. McNeil, NAS Key West  
File 7046-3.2, 1.1.1 (w/o enclosure)

**SWMU 9 Former Jet Engine Test Cell  
NAS Key West, Key West, Florida**

The SWMU 9 Former Jet Engine Cell at NAS Key West, Key West, Florida is part of an ongoing investigation by the Navy to close the site under RCRA. The site is currently in the Corrective Measures Study phase that is being overseen by FDEP and USEPA as part of the DOD Partnering Initiative.

In May 1998, groundwater samples were taken at the SWMU 9 to evaluate the site for natural attenuation purposes. The analytical results indicated that acrolein was detected in the groundwater at a single well S9MW-8 at an estimated value of 100 ug/l. That data was used to characterize the aqueous SWMU 9 Investigation Derived Waste (IDW) in accordance with the FDEP Memorandum on the Management of Contaminated Media under RCRA (July 27, 1995). Although acrolein was not detected at a level above universal treatment standards (UTS), other chemicals were present in the IDW required management of the IDW as a hazardous waste (RCRA Subtitle C).

Until May 1998, no detection of acrolein occurred at the site in groundwater or soil. Extensive samples of soil and groundwater have been taken at the site. During 1993 and 1995 investigations, the groundwater from S9MW-8 was analyzed for volatile organic compounds (VOCs) and no detections were registered except for 2 ug/l benzene in 1995. VOCs have been detected in groundwater at the site in the past and currently remain in the groundwater. These VOCs chemical include trichloroethene and some of its degradation products cis - and trans -1,2 -dichloroethene, as well as benzene, ethylbenzene and xylenes. In 1996 and 1997 a pump and treatment system was operate at the site downgradient of S9MW-8 to remove the solvents in groundwater and acrolein was not detected in any of the associated monitoring events.

In 1993, the source of chlorinated solvent was investigated during a Contamination Assessment Report. According to NAS Key West personnel cleaners and degreasers were used at the site however chlorinated solvents were not components of the cleaners and degreasers used at the site. It was therefore concluded that the cleaners and degreasers were not the source of contamination at the site. Jet fuel and lubrication oil spills have also been identified at the site upgradient of the S9MW-8 well. No other sources have been identified at the site.